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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/155,041 03/04/99 HALLEY

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EXAMINER

BEFUMO, J

ART UNIT

PAPER NUMBER

1771

DATE MAILED:

08/16/00

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IM22/0816

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/155,041

Applicant(s)

HALLEY ET AL.

Examiner

Jenna-Leigh Befumo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 57 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☒ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.

- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 24 is objected to because of the following informalities: the phrase "the material was a water resistance" is unclear. It is assumed that the author meant has instead of was. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Polyester is claimed to be a suitable to use as the hydrophilic polymer layer on the composite material. This claim is not supported by the specification since there is no mention of using polyester as the hydrophilic layer.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "the dot-forming polyurethane" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 20, 22, and 24 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blauer et al. (5,626,949) in view of Henn et al. (5,026,591)

Blauer et al. teaches applying a relatively high-tensile-strength stratum to the inner face of a breathable, water-repellant fabric for outerwear, in which the stratum covers from 10 to 90% of the inner face. Blauer et al. discloses using different discontinuous patterns, Figures 3 – 7, including a dot pattern, to achieve a comfortable, dimensionally stable, and abrasion resistant end product. Blauer et al. fails to teach a three-layer composite fabric that includes a water-resistant, water-vapour-permeable, flexible substrate, consisting of a porous membrane from expanded polytetrafluoroethylene (PTFE) with a coating of a water-vapour-permeable hydrophilic polymer, secured to both the outer fabric layer and inner dot layer. Henn et al. is drawn to coated products comprising a coated microporous scaffold bonded to a fabric substrate. Henn et al. teaches using PTFE as the microporous layer with a chemical coating that adds permeability bonded to a fabric substrate to produce a water-resistant, water-vapour-permeable two-layer fabric. It would be obvious to one having ordinary skill in the art to use in Blauer et al. the two-

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layer water-resistant, water-vapour-permeable fabric taught by Henn et al. instead of the woven fabric because it is a better water resistant, breathable fabric.

Additionally, Blauer et al. fails to specify the exact pattern dimensions and shape, such as height of dots, distance between dots, shape of dots and diameter of dots. However, Blauer et al. does teach that the use of different designs for the stratum layer does not significantly modify the physical properties improved by the discontinuous polymeric layer. Blauer et al. states in Column 3, Line 63 – 65, that “It has been discovered that a multiplicity of patterns, both unconnected and connected are satisfactory, provided that the coverage is from 10 to 90% of the fabric.” It would have been obvious matter of design choice to change the dimensions in height, distance, shape or diameter to produce a different inner layer design, since the applicant has not disclosed that the inner layer dot pattern solves any stated problem or is for any particular purpose.

Blauer et al. also fails to teach elastic modulus of the dot-forming polyurethane. However, Blauer et al. does limit the type of polyurethane, in Column 4 Line 28, with the disclosure that a harder and stronger urethane can be used in the stratum layer that is more durable and will not wash off. It is reasonable to assume that the elastic modulus would be an inherent result of this type of urethane.

Blauer et al. also fails to teach the specific abrasion resistance, water resistance, and water vapour permeability of the composite fabric. Since the substrate and fabric composition will be manufactured as is taught in Henn et al. it is reasonable to presume abrasion resistance, water resistance, and water vapour permeability are an inherent result of the structure and composition and are not drastically modified by the polymeric dot layer.

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Finally, while applicant claims garment made from the composite material no garment structure is set forth, thus the recitation amounts only to intended use which bears no patentable weight.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blauer et al. in view of Henn et al. as applied to claims 1 – 20 and 26 above, and in future view of Gore et al. (4,194,041)

The features of Blauer et al. and Henn et al. have been set forth above. Blauer fails to teach a hydrophilic inner layer made from polyurethane. Gore et al. is drawn to a waterproof microporous fabric. Gore et al. teaches producing a waterproof fabric with a hydrophilic inner layer. In claim 10, Gore et al. discloses using a polyether-polyurethane material as the hydrophilic layer. It would be obvious to one having ordinary skill in the art to use in Blauer et al. a water resistant, breathable fabric taught by Henn et al. with the polyurethane material as the chemical layer on the inner face to improve the moisture vapor transmission from the inside to the outside of the fabric and make a more comfortable garment.

7. Claims 30 – 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henn et al. in view of Blauer et al.

Henn et al. teaches a process to produce a multi-layer composite material comprising a fabric secured to a microporous scaffold with a chemical coating that imparts a desired end result. Henn et al. teaches using specifically, PTFE as the microporous layer with a chemical coating that adds permeability, bonded to a fabric substrate to produce a water-resistant, water-vapour-permeable two-layer fabric. The desired chemical coating is added to the composite with a gravure roll, Column 5 Line 43. Henn et al. does not teach applying the abrasion resistant dots

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to the composite material. Blauer et al. is drawn to printing a relatively high-tensile-strength stratum layer to fabric. Blauer et al. teaches applying the stratum layer to the inner face of the fabric with a rotary screen roller. It would be obvious to one having ordinary skill in the art to apply a dot layer to a composite material with a gravure roll because it is a common method of applying chemical layers to material.

Claims 32 – 55 are rejected because it has been held that in order to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (8:00am - 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo
Patent Examiner
Art Unit: 1771
August 11, 2000


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700